

CENTRAL INTELLIGENCE AGENCY

## INFORMATION REPORT

SECRET

This material contains information affecting the National Defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C. Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

25X1

COUNTRY East Germany/USSR

REPORT

SUBJECT Soviet Project for the Establishment of a Cable Manufacturing Concern to be Designed in East Germany

DATE DISTR. 13 July 1955

NO. OF PAGES 5

25X1

DATE OF INFO.

REQUIREMENT NO. RD

PLACE ACQUIRED

REFERENCES

DATE ACQUIRED

This is UNEVALUATED Information

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.  
THE APPRAISAL OF CONTENT IS TENTATIVE.  
(FOR KEY SEE REVERSE)

1. During the summer of 1952, VEB Kabelwerk Meissen was requested by the then Minister for Machine Construction, Gerhard Ziller, to work out a technical project for the establishment of a large cable concern (Kabelkombinat) in the USSR. The management of the Meissen Kabelwerk was informed that this request emanated from the Industrial Department of the Soviet High Commissioner in Germany. When making the request the Russians gave the following indications about the intended establishment of a cable combine:

- a. This cable combine was to have about three times the capacity of the MOSKABEL enterprise in Moscow. 25X1
- b. It was to have about the same capacity as VEB Kabelwerk Koepenick.
- c. It was to be established in a favorable location in central Siberia or in the east Asiatic part of the USSR. 25X1

2. Heichel (fnu), then manager of VEB Kabelwerk Meissen, was given the supervision of the project. He worked it out with the aid of a number of technicians of his enterprise. The project was finished by early 1953 and passed by the Ministry for Machine Construction to the Industrial Department of the Soviet High Commissioner. This department sent the project to Moscow for approval, which it received in March 1953. The equipment mentioned in para. 4 below, which was part of the project, was then ordered by the Soviets from the firms mentioned. This equipment was to be delivered in 1954 and 1955. It is known that the East German enterprises mentioned started to produce this equipment from 1953 on, and that some deliveries have been made. The orders for the delivery of this equipment were not withdrawn when the "new course" policy was started. A large part of the equipment is scheduled to be delivered in 1955 but the East German enterprises involved will not be able to deliver all the equipment by the end of the year. 25X1

SECRET

SECRET

STATE #	X	ARMY #	X	NAVY	X	AIR #	X	FBI	AEC
---------	---	--------	---	------	---	-------	---	-----	-----

Washington distribution indicated by "W". Field distribution by "F".

25X1

25X1

3. The final form of the project was established by the technicians of VEB Kabelwerk Meissen after a number of conversations between its manager and the head of the Industrial Department of the Soviet High Commission. On these occasions specific wishes of the Industrial Department were made known and later included in the project. The project in its final form provided that the following plants were to be established within the framework of the project:

a. A copper-rolling mill

The total annual capacity of this mill was to be 25,000 tons. This plant was to produce:

- 1) Coarse copper wire (Vorzugsdraht) from 6.35 to 14.0mm diameter; rolled material with square cross-sections with a side length up to 55mm; and rolled material with rectangular cross-sections with side lengths from 5 by 14 to 100 by 100mm.
- 2) Round copper wire, hard or soft according to DIN 1766; round copper wire drawn with diamonds of exact tolerances according to DIN 46431; rectangular copper wire with rounded edges according to DIN 46433; copper wire (Rillenfahrdrähte) with standard profile according to DIN 43131.
- 3) Drawn rod material from copper with rectangular and round cross sections and with special profiles for a multitude of purposes (for instance, segment copper for collectors).
- 4) Copper strip stretched cold (hard) or soft according to DIN 1792.
- 5) All kinds of copper wires according to the prescription dealing with copper for electro-technical purposes contained in VDE 0201 (Verein Deutscher Elektrotechniker) and according to the material norms of DIN 40500.
- 6) Steel wire, hot-rolled, with diameters from 6 to 14mm, and steel strip of 40 to 50mm width and 2.5mm thickness, and of 60mm width and 3.5mm thickness.

b. A wire factory

This factory was to produce:

- 1) Winding wire:  
Lacquered wire; lacquer silk wire; lacquer silk strands; lacquered wire with layers of cellwool (Zellwolle) or cotton; copper wire with silk insulation; copper wire with cellwool or cotton insulation; copper wire with glass fiber and paper insulation; Apyrol wire.
- 2) Circuit wire and circuit strands.
- 3) Insulation wire for telecommunications technology.
- 4) Special circuit wires and equipment, such as cables with insulation from synthetic material, Flexo circuit cables, welding cables, mine cables, dredge cables, and X-ray cables.

c. A high-voltage cable plant

This plant was to produce:

SECRET

25X1

SECRET

25X1

- 1) Impregnated cable (Massekabel), i.e. cables impregnated with cable insulation oil. The following types were to be produced:  
Triple-lead belted insulation cable (Dreileiter Gaertelkabel) from 1 to 10 kV.  
SL (three-conductor) cable (Dreimantelkabel) from 15 to 30 kV.  
Single cable (Einleiterkabel) for direct current, up to 30 kV.
- 2) Special cables of the following types:  
For voltages up to 220 kV;  
Gas pressure cables from 20 to 60 kV;  
Oil cables from 30 to 220 kV;  
Highest voltage (DC) current cables up to 220 kV;
- 3) Special purpose cables (for instance, mine cables and underwater cables)
- 4) Cable fittings, such as cable connections and terminals.
- 5) This plant was also to have an assembly department (Montage-Abteilung) with highly qualified assembly personnel able to assemble complete cable installations.

d. A telecommunications cable plant  
This plant was to produce:

- 1) Signal and measurement cables;
- 2) Carrier frequency cables;
- 3) High-frequency cables with air insulation (Lufttraumisolierung) or full insulation;
- 4) High-frequency cable fittings.

e. A rubber factory

This plant was to be included in the project upon the special specification of the head of the Industrial Department in the Soviet High Commission. The plant was to have a special department for the acid-proof and lye-proof lining of containers, filters, centrifuges, and metal tubing. The plant was to produce:

- 1) Hard-rubber plates and rods as packing material.
- 2) Soft-rubber plates and soft rubber profile material.
- 3) Shaped parts from hard rubber with and without metal inserts.
- 4) Shaped soft-rubber parts such as rings (Schnurringe) and disks of various diameters, of acid-proof and oil-proof quality.

4. The main interest of the Soviets was centered on the problem of what equipment was necessary in order to establish the cable combine and which factories in Germany were able to produce this equipment. The Soviets mentioned several times that the USSR did not have the enterprises for the production of most of the special equipment needed. The project therefore, upon Soviet instructions, specifically dealt with the question of what kind of special equipment was needed and where it could be procured. Following is the principal equipment mentioned in the project:

- a. Six rolling trains for nonferrous metals with the necessary caustic baths (Beizbaeder) and the necessary stretching installations. The Soviets indicated that this equipment could be produced in the USSR.

SECRET

25X1

25X1

- b. Six coarse wire-drawing installations of six parts each, able to process pre-drawn copper or aluminum wire with a diameter of 10 mm. and draw it down to wire with 2mm. diameter. As accessory equipment, point rolls (Anspitzwalzen) used for pointing the wire so that it could be inserted into the hard metal-drawing dies. These installations were to be delivered by the KRATOS enterprise (under trusteeship) in Gruena (Saxony).
- c. 12 hot-rolling installations for the rolling of band steel. The Soviets indicated that this equipment could be produced in the USSR.
- d. 12 cold-rolling installations for the purpose of rolling steel of 0.5 and 0.8mm. thickness for use as cable armor. The Soviets indicated that this equipment could be produced in the USSR.
- e. 12 rapid-type spinning machines with interchangeable spindles for silk, cellwool, cotton, paper, and other cable-wrapping materials. Every machine was to have 12 work steps, i.e. it was to be able to wrap 12 wires at the same time. This equipment was to be produced by the firm of Froitzheim und Rudert in Berlin-Weissensee.
- f. 24 braiding machines (Flechtmaschinen) with up to 48 spools of zinc-plated steel wire and with an automatic stop in case difficulties occurred. This equipment was also to be produced by the Froitzheim und Rudert firm.
- g. 60 spray machines with helices (Schnecken) of 30 to 200mm. These machines were for spraying the wire with rubber or synthetic material. Each machine was to be able to spray 10 km. of wire per shift. The machines were to be procured from the private firm of Heinrich Schirm in Leipzig and from VEB Saechsische Webstuhlfabriken in Neugersdorf (Lausitz).
- h. Stirring equipment, mixer rolls, and rubber colanders for the stirring of the spray material and the mixing with softening agents, were to be procured from VEB Erste Chemnitzer Maschinenfabrik (former Hauboldt und Co.) in Karl-Marx-Stadt. A total of 12 mixer rolls were provided for in the project. The rolls were to have widths of 100, 150 and 200 cm. and diameters of 20, 30 and 35 cm. The mixer walls were not only to be steam-heated for temperatures of 160° and 180° centigrade but were also to be provided with infrared heating equipment.
- i. A vulcanization installation with four large vulcanizing boilers was to be procured from VEB Gaselan, Berlin. The boilers were to have an interior diameter of two meters and were to have six cable drums each.
- j. An annealing installation for the annealing of copper wire was to be procured from VEB LEW (Lokomotiv-und Elektrotechnische Werke) in Hennigsdorf.
- k. 12 rapid-type machines for making ropes (Schnellverseilmaschinen). Six of these machines were to be able to make seven ropes each at the same time, the six others were to be able to make 13 ropes each at the same time. The machines were to be produced by VEB ABUS Maschinenfabrik in Aschersleben. A number of other roping machines were to be produced by VEB Schwermaschinenbau "Ernst Thaelmann" in Magdeburg. Specifically:
- 4 each three-basket machines (Dreikorbmaschinen) with up to 48 spools.
  - 4 each four-basket machines with up to 108 spools.
  - 2 Machines for completing the work of the two above-mentioned types so that a total of 136 wires could be roped.
- l. The Magdeburg enterprise mentioned was also to deliver 12 plating machines (Plattiermaschinen) able to fix from 6 to 64 layers of cable insulation paper upon the conductor in one work process.

SECRET

25X1

SECRET

25X1

25X1

- m. The same Magdeburg enterprise was to deliver a number of hydraulic three-piston pumps and six lead presses. Lead-melting equipment was to be delivered by VEB LEW in Hennigsdorf. The lead presses were of the following types:

2 presses, type KW 30 (i.e. the cylinder of the presses was able to receive 300 kg. of molten lead).

2 presses, type KW 60 (cylinder capacity 600 kg.)

2 presses, type KW 80 (cylinder capacity 800 kg.)

The lead melting equipment was for 3 and 5 tons of lead; the temperature was controlled by resistors and pyrometers. The Soviets specified that the pumps were to have a performance of 800 Atü although the German experts considered 400 Atü as sufficient.

- n. Vacuum drying installations for the drying of the cables. These installations were to have four large boilers each with a diameter of 3.80 meters and a height of 4 meters. The lids of the boilers were to be opened and closed electrically. Two of the boilers were to be provided with interior DC heating equipment so that in addition to steam-drying the individual veins of the cables could be heated up to 120° centigrade in order to accelerate the drying process. The boilers were to be produced by VEB Gaselan, Berlin. The vacuum pump and the high-vacuum installations were to be delivered by VEB Eichpumpenfabrik, Halle. The installations were to be provided with automatic recorders (Selbstschreiber) to be delivered by VEB Messgeraete Quedlinburg.
- o. Six drying installations for telecommunications cables with condensers, to be delivered by VEB Gaselan, Berlin.
- p. 24 spinning machines (Ader-Umspinnmaschinen) were to be delivered by the firm Froitzheim und Rudert in Berlin-Weissensee. The same firm was to deliver four machines for the production of ropes from a mixture of cotton and cellwool.
- q. Six paper-cutting machines with printing equipment to be delivered by VEB Spezialmaschinenfabrik (former Koebig und Co.) in Radebeul.
- r. 12 roping machines (Sternviererverseilmaschinen) with drums to be delivered by Froitzheim und Rudert in Berlin-Weissensee.
5. The head of the Industrial Department of the Soviet High Commission repeatedly indicated that the project was of high importance to the USSR since the USSR had been obliged in the past to import large amounts of cable from VEB Kabelwerk Oberspree, Berlin and VEB Kabelwerk Koepenick. The implementing of this project was intended to make the USSR largely independent of these imports. It is known that some of the East German firms mentioned are now engaged in producing the equipment ordered by the Soviets.

25X1

S-E-C-R-E-T

25X1